

not have the same habit. It does indeed differ in some respects from its relative, being much less active in its movements, and also it does not always, as Lilljeborg * has already pointed out, swim upon its back. In fact its movements are somewhat aimless, and it seems likely that this is due to the almost total absence of the spinous posterior prolongations of the valve, which, like the spines of Decapod zoëas, may serve in *S. mucronata* as directive organs. But it has exactly the same habit of swimming on its back suspended by the surface-film. If it is examined in this position in the way recommended by Scourfield—namely, by brightly illuminating the surface of the water, and then focussing a lens upon the animal—it can be seen that where it touches the surface there are two rows of minute breaks in the surface-film, between which the swimming-legs may be seen moving. These breaks have the appearance of elevations, but it is very difficult to distinguish an elevation from a depression when of such minuteness. I believe that these breaks are made by the small teeth upon the inner longitudinal ridge, and that they are actually depressions caused by these teeth piercing the surface-film. If that is so, we have an interesting case of the same end being attained by widely different structures. It would be very instructive to know whether in *S. microcephala* there is yet a third arrangement for the same purpose.

These teeth appear also to be used by *S. aurita* for temporary attachment to submerged objects, such as the sides of a glass vessel in which it is contained. One other point may be alluded to, namely, the colour. In all the specimens of *S. aurita* which I have seen the colour is more or less deep orange, though it varies greatly according to Lilljeborg. There is no localized distribution of the pigment about the ventral surface such as obtains in *S. mucronata* and has been explained as a protective modification.

LXVI.—*Three new Bats from the Cameroons, discovered by Mr. G. L. Bates.* By OLDFIELD THOMAS.

Nycteris arge, sp. n.

Allied to *N. thebaica*, but with much smaller tragus.

Size medium. General colour dark brownish above and below. Nose-leaf of normal structure, but unusually thickly

* 'Cladocera Sueciæ,' 1900, p. 164.

hairy. Ears of average size, the projecting lobule at their outer bases very strongly developed, inverted, deeply concave externally, convex internally. Tragus with its free portion, as in *N. thebaica*, expanded above and convex on its inner margin, but the free portion itself is barely one third its size in the allied species, the distance from its inner base to its tip considerably less than the distance from the same point to the base of the outer margin.

Upper incisors deeply bifid; second lower premolar nearly half the size of the first, in the tooth-row.

Dimensions of the type (measured in spirit):—

Forearm 45 mm.

Head and body 52; tail 48; lower leg and foot (s. u.) 32.5; head 21.5; ear 28; inner margin of tragus 2.5.

Hab. Efulen, Cameroons.

Type. Adult male. Collected by Mr. G. L. Bates. Two specimens.

This *Nycteris* is readily distinguishable by the extremely small size of the free portion of the tragus, which is otherwise similar in shape to that of *N. thebaica*.

Miniopterus inflatus, sp. n.

Colour of *M. scotinus*. Size larger than in *M. Schreibersi*.

Fur of back about 4 mm. in length, its texture about as in *M. scotinus*, not extending on to the interfemoral or wing-membranes except close to the sides below. Colour uniform dark "seal-brown" above, rather paler below. Ears and membranes black.

Skull markedly larger than in *M. Schreibersi*, therefore still more exceeding that of the similarly coloured *M. scotinus*.

Dimensions of the type:—

Forearm 46 mm.

"Head and body 65; tail 48; hind foot 7; ear 11" (*G. L. B.*).

Skull: greatest length 16.7; basal length in middle line 12.3; front of incisors to back of m^3 7.8.

Hab. Efulen, Cameroons.

Type. Adult skin (male). B.M. no. 3. 2. 4. 8. Collected 24th July, 1901, by Mr. G. L. Bates.

This *Miniopterus* is at once distinguishable from *M. Schreibersi* by its dark colour and large head, and from *M. scotinus* and *M. Newtoni* by its much larger size.

Nyctinomus thersites, sp. n.

A medium-sized species, with proportionally short limbs, united ears, separated premaxillæ, and very small lower check-teeth.

Body large as compared with the short forearms and legs. Muzzle short, upper lip distinctly furrowed. Ears short, opaque, their tips broadly rounded; inner margins united at base; anterior margin without minute horny points; antitragus as high as long, with a deep notch behind it; keel thickened below, but not flattened externally. Tragus minute, almost linear; a separate, very distinct, external basal projection developed halfway between its outer base and the inner side of the antitragus. Fur short, close, and velvety; hairs of back barely $2\frac{1}{2}$ mm. long, tufts* of long hairs (about $\frac{1}{2}$ inch in length) placed on each side of the rump; fur confined to body throughout, except a narrow rim along each side below. Colour dark brownish chestnut, the glandular hairs behind the junction of the ears black. Penis projecting but little from the surrounding flesh, without special scent-glands.

Premaxillæ separated, but the opening between them small; anteorbital crests scarcely developed; sagittal crest low; lambdoid crest strong, forming a prominent projection on each side of the middle line. Lower jaw unusually thick and heavy.

Upper incisors thick, vertical, parallel, well separated. Anterior premolar small, but standing in the tooth-row, and separating the canine from the large premolar. Lower incisors four, bifid, overlapping. Lower premolars very abnormal in being subequal, the anterior scarcely shorter than the posterior. Molars unusually low-crowned, their vertical height considerably less than that of the thick mandibular ramus.

Dimensions of the type (measured on the spirit-specimen):—

Forearm 41 mm.

Head and body 75; tail 32; ear 17; tragus on inner edge 1.2; third finger, metacarpus 40, first phalanx 17, second phalanx 16; fifth finger, metacarpus 26, first phalanx 9, second phalanx 4; lower leg 15, lower leg and foot (s. u.) 23.

Skull: greatest length 20; zygomatic breadth 12.5; front of canine to back of m^3 7.3.

Hab. Efulen, Cameroons.

Type. Old male. Collected by Mr. G. L. Bates. Three specimens.

By Dobson's synopsis this bat comes near *N. pumilus*, but may be readily distinguished from that species by its larger size and the many peculiarities, external and cranial, described above.

* These tufts appear to occur in many species, though seldom so well developed as in the present animal.